

**REMARKS**

Applicant appreciates the Examiner taking time to discuss the Office Action, the claims of the subject application, and the Monteiro reference. Accordingly, the claim amendments provided herein reflect our discussion and place the application in condition for allowance.

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 2, 24, and 30-31 have been canceled. Claims 1, 3-23, 25-29, and 32-56 are pending, of which claims 1, 4-11, 13, 20-23, 25-29, 32-49, 52, and 54-55 have been amended.

**35 U.S.C. §112 Claim Rejections**

Claims 10-11 are rejected under 35 U.S.C. §112, second paragraph as being indefinite (*Office Action* p.3). Appropriate amendments have been provided herein and Applicant respectfully requests that the §112 rejection of claims 10-11 be withdrawn.

**35 U.S.C. §102 Claim Rejections**

Claims 1-5, 7-16, 18, 20-22, 24-25, 27-30, 32-38, 40-46, and 48-56 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,778,187 to Monteiro et al. (hereinafter, "Monteiro") (*Office Action* p.3). Claims 2, 24, and 30 are canceled. Applicant respectfully traverses the rejection of the remaining claims.

1 Claim 1 recites a method, comprising:

2 receiving a synthesizer MIDI instruction to generate multiple  
3 streams of audio wave data with a synthesizer software component;

4 receiving requests from audio data buffers to route the multiple  
5 streams of audio wave data from the synthesizer software component to the  
6 audio data buffers;

7 dynamically generating a plurality of logical buses instantiated as  
8 software components, the logical buses each corresponding to an audio data  
9 buffer;

10 assigning at least one audio wave data stream to a plurality of the  
11 logical buses;

12 routing any stream of audio wave data assigned to a particular  
13 logical bus to the audio data buffer corresponding to said particular logical  
14 bus; and

15 dynamically releasing at least one of the logical buses when no  
16 longer needed to route a stream of audio wave data.

17 Monteiro does not show or disclose the combination of features recited in  
18 claim 1. For example, Monteiro does not show or disclose a synthesizer software  
19 component, "receiving a synthesizer MIDI instruction", or even mention a  
20 synthesizer, as recited in claim 1. Further, there is nothing in Monteiro to indicate  
21 "dynamically generating a plurality of logical buses instantiated as software  
22 components, the logical buses each corresponding to an audio data buffer", as  
23 recited in claim 1. Monteiro only describes a multicasting system to deliver audio  
24 data from a server to a user device via a network (*Monteiro* col.2, lines 7-26; lines  
25 57-66).

1 Accordingly, claim 1 along with dependent claims 3-5 and 7-12 are  
2 allowable over Monteiro for at least the reasons described above, and Applicant  
3 respectfully requests that the §102 rejection be withdrawn.

4  
5 Claim 13 recites an audio generation system implemented in a computing  
6 device, the audio generation system comprising “a plurality of audio wave data  
7 sources from which streams of audio wave data are generated by a synthesizer  
8 software component”, and “a software component configured to dynamically  
9 generate logical buses instantiated as software components to route the streams of  
10 audio wave data to corresponding audio wave data consumers”.

11 As described above in the response to the rejection of claim 1, Monteiro  
12 does not show or disclose a synthesizer software component, or even mention a  
13 synthesizer. Further, there is nothing in Monteiro to indicate “a software  
14 component configured to dynamically generate logical buses instantiated as  
15 software components”, as recited in claim 13. Additionally, Monteiro does not  
16 show or disclose an audio generation system implemented in a computing device,  
17 as recited in claim 13. To the contrary, Monteiro only describes a multicasting  
18 system to deliver audio data from a server device to a user device via a network.

19 Accordingly, claim 13 along with dependent claims 14-16, 18, and 20-22  
20 are allowable over Monteiro for at least the reasons described above, and  
21 Applicant respectfully requests that the §102 rejection be withdrawn.

22  
23 Claim 25 recites an audio generation system comprising “a synthesizer  
24 software component configured to generate multiple streams of audio wave data in  
25

1 response to receiving one or more synthesizer MIDI instructions”, and “a software  
2 component configured to dynamically generate a plurality of logical buses  
3 instantiated as software components to route the multiple streams of audio wave  
4 data”.

5 As described above in the response to the rejection of claim 1, Monteiro  
6 does not show or disclose a synthesizer software component, synthesizer MIDI  
7 instructions, or even mention a synthesizer. Further, there is nothing in Monteiro  
8 to indicate “dynamically generate a plurality of logical buses instantiated as  
9 software components”, as recited in claim 25.

10 Accordingly, claim 25 along with dependent claims 27-29 and 32-35 are  
11 allowable over Monteiro for at least the reasons described above, and Applicant  
12 respectfully requests that the §102 rejection be withdrawn.

13  
14 Claim 36 recites a computer-based audio generation system comprising “a  
15 plurality of logical bus objects instantiated as software components configured to  
16 receive audio wave data, wherein each logical bus object corresponds to an audio  
17 data buffer”, and wherein “each logical bus object is dynamically generated to  
18 route the audio wave data to a corresponding audio data buffer”.

19 As described above in the response to the rejection of claim 1, there is  
20 nothing in Monteiro to indicate that logical bus objects are dynamically generated,  
21 as recited in claim 36. Further, as described above in the response to the rejection  
22 of claim 13, Monteiro does not show or disclose a computer-based audio  
23 generation system, as recited in claim 36. To the contrary, Monteiro only  
24  
25

1 describes a multicasting system to deliver audio data from a server device to a user  
2 device via a network.

3 Accordingly, claim 36 along with dependent claims 37-38 and 40-43 are  
4 allowable over Monteiro for at least the reasons described above, and Applicant  
5 respectfully requests that the §102 rejection be withdrawn.

6  
7 Claim 44 recites a data structure for an audio processing system  
8 implemented in a computing device comprising “a bus identifier parameter to  
9 uniquely identify a logical bus that is dynamically instantiated as a software  
10 component, and that corresponds to an audio data buffer”.

11 As described above in the response to the rejection of claims 1 and 13,  
12 there is nothing in Monteiro to indicate that a logical bus is dynamically  
13 instantiated as a software component, as recited in claim 44. Further, Monteiro  
14 does not show or disclose an audio processing system implemented in a computing  
15 device, as recited in claim 44.

16 Accordingly, claim 44 is allowable over Monteiro for at least the reasons  
17 described above, and Applicant respectfully requests that the §102 rejection be  
18 withdrawn.

19  
20 Claim 45 recites a method comprising “generating one or more streams of  
21 audio wave data with an audio wave data generation software component when  
22 receiving audio content and a MIDI instruction”, and “dynamically generating  
23 logical bus components instantiated as software components configured to route  
24 the one or more streams of audio wave data to the audio data buffer”.

1 As described above in the response to the rejection of claim 1, Monteiro  
2 does not show or disclose an audio wave data generation software component or a  
3 MIDI instruction. Further, there is nothing in Monteiro to indicate "dynamically  
4 generating logical bus components instantiated as software components", as  
5 recited in claim 45.

6 Accordingly, claim 45 along with dependent claims 46 and 48-51 are  
7 allowable over Monteiro for at least the reasons described above, and Applicant  
8 respectfully requests that the §102 rejection be withdrawn.

9  
10 Claim 52 recites a method comprising "receiving a synthesizer MIDI  
11 instruction to generate multiple streams of audio wave data with a synthesizer  
12 software component", and "dynamically generating logical buses instantiated as  
13 software components".

14 As described above in the response to the rejection of claim 1, Monteiro  
15 does not show or disclose a synthesizer software component, or even mention a  
16 synthesizer. Further, there is nothing in Monteiro to indicate "dynamically  
17 generating logical buses instantiated as software components", as recited in  
18 claim 52.

19 Accordingly, claim 52 along with dependent claims 53-56 are allowable  
20 over Monteiro for at least the reasons described above, and Applicant respectfully  
21 requests that the §102 rejection be withdrawn.

**35 U.S.C. §103 Claim Rejections**

**A.** Claims 6, 17, 19, 31, 39, and 47 are rejected under 35 U.S.C. §103(a) as being obvious over the single Monteiro reference (*Office Action* p.20). Applicant respectfully traverses the rejection.

**B.** Claim 23 is rejected under 35 U.S.C. §103(a) as being obvious over Monteiro in view of U.S. Patent No. 6,628,928 to Crosby et al. (hereinafter, "Crosby") (*Office Action* p.22). Applicant respectfully traverses the rejection.

**C.** Claim 26 is rejected under 35 U.S.C. §103(a) as being obvious over Monteiro in view of U.S. Patent No. 6,233,389 to Barton et al. (hereinafter, "Barton") (*Office Action* p.23). Applicant respectfully traverses the rejection.

Claims 6, 17, 19, 31, 39, and 47 are allowable by virtue of their dependency upon respective independent claims 1, 13, 25, 36, and 44 which are each allowable over Monteiro for at least the reasons described above in response to the §102 rejection of claims 1, 13, 25, 36, and 44. Accordingly, the §103 rejection over Monteiro should be withdrawn.

Claim 23 is allowable by virtue of its dependency upon independent claim 13 which is allowable over Monteiro for at least the reasons described above in response to the §102 rejection of claim 13. Claim 23 is also allowable over the Monteiro-Crosby combination because Crosby does not address the deficiencies of Monteiro as described above in the response to the rejection of claim 13. Accordingly, the §103 rejection over the Monteiro-Crosby combination should be withdrawn.

1  
2 Claim 26 is allowable by virtue of its dependency upon independent  
3 claim 25 which is allowable over Monteiro for at least the reasons described above  
4 in response to the §102 rejection of claim 25. Claim 26 is also allowable over the  
5 Monteiro-Barton combination because Barton does not address the deficiencies of  
6 Monteiro as described above in the response to the rejection of claim 25.  
7 Accordingly, the §103 rejection over the Monteiro-Barton combination should be  
8 withdrawn.

9  
10 **Conclusion**

11 Pending claims 1, 3-23, 25-29, and 32-56 are in condition for allowance.  
12 Applicant respectfully requests reconsideration and issuance of the subject  
13 application. If any issues remain that preclude issuance of this application, the  
14 Examiner is urged to contact the undersigned attorney before issuing a subsequent  
15 Action.

16  
17 Respectfully Submitted,

18  
19 Dated: Nov 23, 2005

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